

REMARKS

Claims 1-12 are pending and under consideration. In the final Office Action dated March 1, 2007, the Examiner made the following disposition:

- A.) Commented on priority claim.
- B.) Commented on claims 1 and 7.
- C.) Rejected claims 1-12 under 35 U.S.C. §102(b) as being anticipated by *Kawakami, et al.* (U.S. 6,432,585) (“*Kawakami*”).
- D.) Rejected claims 1, 3-7, and 9-12 under 35 U.S.C. §102(b) as being anticipated by *Suzuki, et al.* (U.S. 6,413,672) (“*Suzuki 672*”).
- E.) Rejected claims 1, 4, 5, 7, 10, and 11 under 35 U.S.C. §102(b) as being anticipated by *Suzuki, et al.* (U.S. 6,171,725) (“*Suzuki 725*”).
- F.) Rejected claims 1-12 under 35 U.S.C. §§102(e)/103(a) as being anticipated by *Inoue, et al.* (U.S. 6,506,520) (“*Inoue*”).
- G.) Rejected claims 1, 4, 5, 7, 10, and 11 under 35 U.S.C. §102(b) as being anticipated by *Takami, et al.* (U.S. 6,350,544) (“*Takami*”).

Applicant respectfully traverses the rejections and addresses the Examiner’s disposition below.

A.) Comment on priority claim:

Applicant notes the discrepancy in the Declaration. Applicant will submit a new Declaration separately herefrom. The new Declaration will correctly state that there is no priority claim.

B.) Comment on claims 1 and 7:

Claims 1 and 7 have been amended to clarify the claim language.

C-G.) Rejections of the claims under 35 U.S.C. §§102 and 103 based on various references:

Applicant respectfully disagrees with the rejections.

Applicant’s independent claims 1 and 7, each as amended, each claim subject matter relating to a composite material including a base material physically bonded by van der Waals forces to a carbonaceous material, the base material including at least one element selected from the Group 14 elements, except for carbon (C). The physical bonding of the base material to the

carbonaceous material is effected by applying a compressive force and a shearing force to at least a part of a surface of a base material when the composite material is formed.

As described in Applicant's specification, Applicant's claimed composite material has a carbonaceous material that is more firmly adhered to the base material compared to conventional composite materials. This is because the carbonaceous material is physically bonded to the base material by van der Waals forces, which occur due to the application of a compressive force and a shearing force at the time the composite material is formed. This is unlike conventional composite materials, which are merely mixed or milled together and thus do not exhibit carbonaceous and base materials physically bonded by van der Waals forces. Applicant's claimed composite material exhibits improved cycle characteristics due to the claimed physical bonding. *Specification*, page 6.

The cited references, taken singly or in combination, fail to disclose or suggest a composite material including a base material physically bonded by van der Waals forces to a carbonaceous material. Nowhere do the cited references suggest physically bonding materials by van der Waals forces. Further, nowhere do the cited references suggest applying a compressive force and a shearing force to a surface of a base material when a composite material is formed in order to effect physical bonding by van der Waals forces. The cited references at best disclose milling and/or mixing of ingredient materials. None discloses or fairly suggest particles or a material resulting from the application of a compressive force and shearing action.

For at least these reasons, the cited references, taken singly or in combination, fail to disclose or suggest claims 1 and 7.

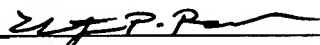
Claims 2-6 and 8-12 depend directly or indirectly from claims 1 or 7 and are therefore allowable for at least the same reasons that claims 1 and 7 are allowable.

Applicant respectfully submits the rejections have been overcome and requests that they be withdrawn.

Conclusion

Accordingly, it is submitted that claims 1-12 are patentable, and that the application is in condition for allowance. Notice to the effect is respectfully requested.

Respectfully submitted,

By: 
Christopher P. Rauch (Reg. No 45,034)
SONNENSCHN NATH & ROSENTHAL
P.O. Box 061080
Wacker Drive Station - Sears Tower
Chicago, Illinois 60606-1080
Phone: (312) 876-8000